

AMENDMENTS TO THE CLAIMS

1. – 3. (Cancelled)

4. (Currently Amended) In a system comprising a first fabric and a plurality of devices coupled to the first fabric by Fibre Channel connections, a method for logically organizing the devices comprising:

accessing a definition of a first configuration including at least one zone, each zone including at least one device as a member of the zone; and

responsive to the definition of the first configuration, restricting communications between the devices coupled to the first fabric; The method of claim 1

wherein the step of restricting communications between the devices includes, responsive to a first device querying for an address of a second device, returning the address of the second device only if the first and second device are members of a common zone.

5. (Original) The method of claim 4 wherein the step of restricting communications between the devices includes, responsive to a first device querying the first fabric for a list of addresses of other devices coupled to the first fabric, returning a list of only the addresses of other devices which are in a common zone with the first device.

6. (Original) The method of claim 5 wherein the step of restricting communications between the devices further includes, responsive to a change in the first configuration, signaling the first device to requery the first fabric for a list of addresses of other devices coupled to the first fabric.

7. – 11. (Cancelled)

12. (Currently Amended) In a system comprising a first fabric and a plurality of devices coupled to the first fabric by Fibre Channel connections, a method for logically organizing the devices comprising:

accessing a definition of a first configuration including at least one zone, each zone including at least one device as a member of the zone; and

responsive to the definition of the first configuration, restricting communications between the devices coupled to the first fabric; The method of claim 11

wherein:

in the definition of the first configuration, at least one zone is characterized by a type of communication; and

the step of restricting communications includes restricting communications between devices which are member of said zone to said type of communication, and wherein the type of communication includes read-only access of devices.

13. (Currently Amended) In a system comprising a first fabric and a plurality of devices coupled to the first fabric by Fibre Channel connections, a method for logically organizing the devices comprising:

accessing a definition of a first configuration including at least one zone, each zone including at least one device as a member of the zone; and

responsive to the definition of the first configuration, restricting communications between the devices coupled to the first fabric; The method of claim 11

wherein:

in the definition of the first configuration, at least one zone is characterized by a type of communication; and

the step of restricting communications includes restricting communications between devices which are member of said zone to said type of communication, and wherein the type of communication includes a communications protocol.

15. – 23. (Cancelled)

24. (Currently Amended) In a system comprising a first fabric and a plurality of devices coupled to the first fabric by Fibre Channel connections, a method for logically organizing the devices comprising:

accessing a definition of a first configuration including at least one zone, each zone including at least one device as a member of the zone;

responsive to the definition of the first configuration, restricting communications between the devices coupled to the first fabric; and The method of claim 23

responsive to a merging of the first fabric with a second fabric, modifying the definition of the first configuration to account for the second fabric.

wherein the step of modifying the definition of the first configuration includes: determining whether the definition of the first configuration is compatible with definitions for configurations for the second fabric; and responsive to a determination of compatible configurations, propagating the first configuration to the second fabric.

25. (Currently Amended) In a system comprising a first fabric and a plurality of devices coupled to the first fabric by Fibre Channel connections, a method for logically organizing the devices comprising:

accessing a definition of a first configuration including at least one zone, each zone including at least one device as a member of the zone;

responsive to the definition of the first configuration, restricting communications between the devices coupled to the first fabric; and ~~The method of claim 23~~

responsive to a merging of the first fabric with a second fabric, modifying the definition of the first configuration to account for the second fabric,

wherein the step of modifying the definition of the first configuration includes: determining whether the definition of the first configuration is compatible with definitions for configurations for the second fabric; and

responsive to a determination of incompatible configurations, segmenting the second fabric from the first fabric.

26. – 28. (Cancelled)

29. (Currently Amended) The fabric element of claim 27-A fabric element for use in a system comprising a first fabric and a plurality of devices coupled to the first fabric by Fibre Channel connections, the fabric element comprising:

a plurality of ports, each port adapted to be coupled to a device by a Fibre Channel connection;

a storage medium for storing a definition of a first configuration including at least one zone, each zone including at least one device as a member of the zone; and

a logic device coupled to the plurality of ports and to the storage medium, for responsive to the definition of the first configuration, restricting communications for devices coupled to the plurality of ports.

wherein the logic device includes a name server for, responsive to a first device querying for an address of a second device, returning the address of the second device only if the first and second device are members of a common zone.

32. – 33. (Cancelled)

34. (Currently Amended) A computer readable medium containing software for logically organizing a plurality of devices coupled to a first fabric by Fibre Channel connections, the software for instructing a processor to perform the steps of:  
accessing a definition of a first configuration including at least one zone, each zone including at least one device as a member of the zone; and  
responsive to the definition of the first configuration, restricting communications between the devices coupled to the first fabric. The computer readable medium of claim 33

wherein the step of restricting communications between the devices includes, responsive to a first device querying for an address of a second device, returning the address of the second device only if the first and second device are members of a common zone.

35. (Original) The computer readable medium of claim 34 wherein the step of restricting communications between the devices includes, responsive to a first device querying the first fabric for a list of addresses of other devices coupled to the first fabric, returning a list of only the addresses of other devices which are in a common zone with the first device.

36. (Original) The computer readable medium of claim 35 wherein the step of restricting communications between the devices further includes, responsive to a change in the first configuration, signaling the first device to requery the first fabric for a list of addresses of other devices coupled to the first fabric.

37. – 43. (Cancelled)

44. (Currently Amended) A computer readable medium containing software for logically organizing a plurality of devices coupled to a first fabric by Fibre Channel connections, the software for instructing a processor to perform the steps of:  
accessing a definition of a first configuration including at least one zone, each zone including at least one device as a member of the zone;

responsive to the definition of the first configuration, restricting communications between the devices coupled to the first fabric; and The computer readable medium of claim 43

responsive to a merging of the first fabric with a second fabric, modifying the definition of the first configuration to account for the second fabric,

wherein the step of modifying the definition of the first configuration includes:  
determining whether the definition of the first configuration is compatible with definitions for configurations for the second fabric; and  
responsive to a determination of compatible configurations, propagating the first configuration to the second fabric.

45. (Currently Amended) A computer readable medium containing software for logically organizing a plurality of devices coupled to a first fabric by Fibre Channel connections, the software for instructing a processor to perform the steps of:

accessing a definition of a first configuration including at least one zone, each zone including at least one device as a member of the zone;

responsive to the definition of the first configuration, restricting communications between the devices coupled to the first fabric; and

responsive to a merging of the first fabric with a second fabric, modifying the definition of the first configuration to account for the second fabric. The computer readable medium of claim 43

wherein the step of modifying the definition of the first configuration includes:  
determining whether the definition of the first configuration is compatible with definitions for configurations for the second fabric; and

responsive to a determination of incompatible configurations, segmenting the second fabric from the first fabric.

46. (Cancelled)

47. (Previously presented) A Fibre Channel device for use in a Fibre Channel Fabric, the fabric coupling a plurality of external devices, the fabric configured into at least two zones, where the external devices are allowed to exchange data packets only with external devices in the same zone, an external device querying for address information when coupled to the fabric, the Fibre Channel device comprising:

a Fibre Channel port for receiving an address information query from an external device;

a storage medium for storing a first configuration including at least two zones;  
a simple name server coupled to said Fibre Channel port and said storage medium for responding to the address information query with external devices address information only for external devices in the same zone as the external device providing the address information query.

48. (Previously presented) A Fibre Channel switch for use in a Fibre Channel Fabric, the fabric coupling a plurality of external devices, the fabric configured into at least two zones, where the external devices are allowed to exchange data packets only with external devices in the same zone, an external device querying for address information when coupled to the fabric, the Fibre Channel switch comprising:

a Fibre Channel port for receiving an address information query from an external device;

a storage medium for storing a first configuration including at least two zones;  
a simple name server coupled to said Fibre Channel port and said storage medium for responding to the address information query with external devices address information only for external devices in the same zone as the external device providing the address information query.

49. (Previously presented) The Fibre Channel switch of claim 48, wherein said simple name server includes:

a CPU module; and  
software executing on said CPU module to provide said simple name server functionality.

50. (Previously presented) A Fibre Channel network comprising:  
a plurality of external Fibre Channel devices; and  
a Fibre Channel fabric coupling said plurality of external Fibre Channel devices, wherein the fabric is configured into at least two zones, where the external Fibre Channel devices are allowed to exchange data packets only with external Fibre Channel devices in the same zone and the external Fibre Channel devices query for address information when coupled to the fabric wherein said Fibre Channel fabric includes:

a Fibre Channel port for receiving an address information query from an external Fibre Channel device;

a storage medium for storing a first configuration including at least two zones; and

a simple name server (SNS) coupled to said Fibre Channel port and said storage medium for responding to the address information query with external Fibre Channel devices address information only for external Fibre Channel devices in the same zone as the external Fibre Channel device providing the address information query.